Welcome to the Smarter Machine Movement.

Brought to you through
Dynamic Machine Control

Powering Business Worldwide

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EC&S Products

	Industrial	Industrial & Mobile	Mobile
Application Development	Xsoft-CoDeSys-2 & 3 Hm*i* Soft	Pro-FX®	Pro-FX®
Human Interface	XP Hm*i* XV HMI-PLC ELC	Pushbuttons & Lights	OMNEX CAN Switches VFX
Network Controllers & Devices	ELC PLCs ELPRO Wireless XC152 SmartWire PLCs		HFX
Hydraulic Products	Hydrokraft Piston Pump Sensors & Switches AxisPro & DG Valves	LifeSense DG Valves HPR	CMA & CLS Mobile Piston

Eaton Pro-FX™ Product Overview

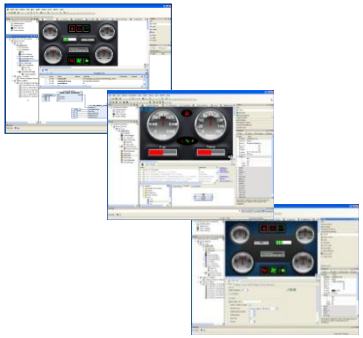
- Broad electronics portfolio
- Linked by Pro-FX™ Control
- Flexible, open platform

Benefits

- Rugged construction.
- Reliable performance.
- Safety, productivity, and comfort.
- Powered by the Pro-FX Control software that brings it all together.

Pro-FX™ Control

Application Development



Pro-FX™ Configure

Service Tool

CAN Keypads

Displays

VFX Displays

Controllers

HFX Mobile Controllers

Hydraulics

Piston Pumps

Advanced Mobile Valves

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Eaton Pro-FX™ Product Portfolio

Displays

VFX70m
VFX71m - Video
VFX72m – Video & Touch

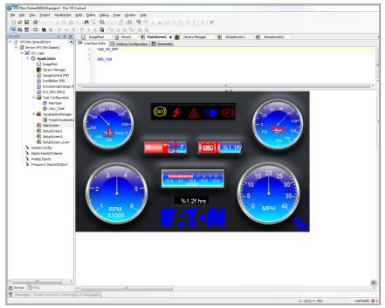
7” Screen

4.3” and 7” sizes
2 CAN Interface
IP67 rated, -40 to 85 ºC

VFX40m
VFX41m - Video

4.3” Screen

Pro-FX™ Control



HFX48m

24 In / 24 Out
3 Can Ports

HFX32m

16 In / 16 Out
3 Can Ports

HFX20m

10 In / 10 Out
3 Can Ports

HFX12m

6 In / 6 Out
3 Can Ports

32 bit, 200 MHz
IP67 & IP69K rated
-40 to 105 ºC

Controllers

Application Complexity

Capabilities

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HFX Technical Specifications

HFX12m

6 In / 6 Out
3 Can Ports

HFX20m

10 In / 10 Out
3 Can Ports

HFX32m

16 In / 16 Out
3 Can Ports

HFX48m

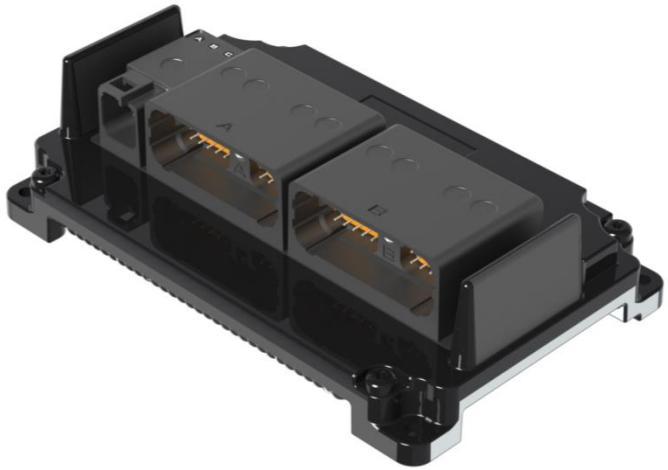
24 In / 24 Out
3 Can Ports

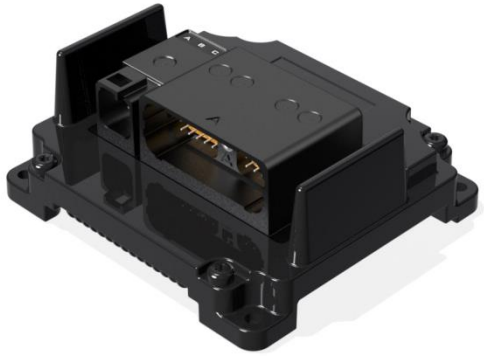
- 4 Controllers - 12, 20, 32, 48 I/O
- IP67, IP69k, -40 - 105ºC Temperature Rating
- Renesas Super H 200 MHz, 32 bit micro-processor, 256k SRAM, 3.75M Flash
- 3 CAN, 1 USB Channels
- Onboard 5/10V Sensor Supply
- Deutsch Connectors

- Flexible I/O Configurations, common board designs
  - Inputs – Digital, Analog, Thermistor, Frequency
  - Outputs – Digital, PWM current controlled
  - Open-circuit and Short-circuit Protection
- Pro-FX™ Control Software Development Tool
  - IEC 61131-3 Compliant
  - CODESYS V3.5 based Run-Time Engine

HFX Key Competitive Advantages

- 200 MHz 32 Bit Processor
  - Fast program loop times
  - Ability to manage high frequency IO simultaneously
  - Triple CAN port capability
- CAN Capabilities
  - 3 CAN channels configurable as J1939 or CANOpen
  - J1939 & CANOpen protocol embedded in Pro-FX development tool
  - Eaton J1939 Extension Library Now Available
- Best in Class I/O Capabilities
  - Onboard Configurable Sensor Supply
  - Thermistor & variable reluctance frequency sensor inputs as standard
  - PWM current control on all outputs as standard
  - Common IO configuration for all connectors, scale between controller sizes easily
  - Use outputs as inputs
  - Quadrature encoder capability
  - LIVe – Low Impedance Valve driver
- Deutsch Industry Standard Best in Class Connectors





VFX Technical Specifications

VFX40m	VFX41m	VFX70m	VFX71m	VFX72m
4.3” 480 x 272 Pixels 650 cd/m²	4.3” 480 x 272 Pixels 650 cd/m² 2 Video Inputs	7.0” 800 x 480 Pixels 1000 cd/m²	7.0” 800 x 480 Pixels 1000 cd/m² 3 Video Inputs	7.0” 800 x 480 Pixels 1000 cd/m² 3 Video Inputs Touch screen

- 4.3” 480 x 272 16:9 Aspect Ratio 650 cd/m²
- 7” 800 x 480 16:9 Aspect Ratio 1000 cd/m²
- Up to 3 Camera/Video Ports
- Projective Capacitive Touch Screen
- Optically bonded LCD assembly
- Bezel and back mount options
- IP67, -40 - 85ºC Temperature Rating

- Rugged Design (7.86g random vibe, 50g shock)
- 2 CAN Channels (Config. J1939 & CANOpen)
- USB Port (Programming, Data Logging)
- Pro-FX Control Development Tool
  - Configurable CAN channels - J1939/CANOpen
  - CANOpen & J1939 CAN Stack embedded in Pro-FX Control
- Custom startup screen and graphics

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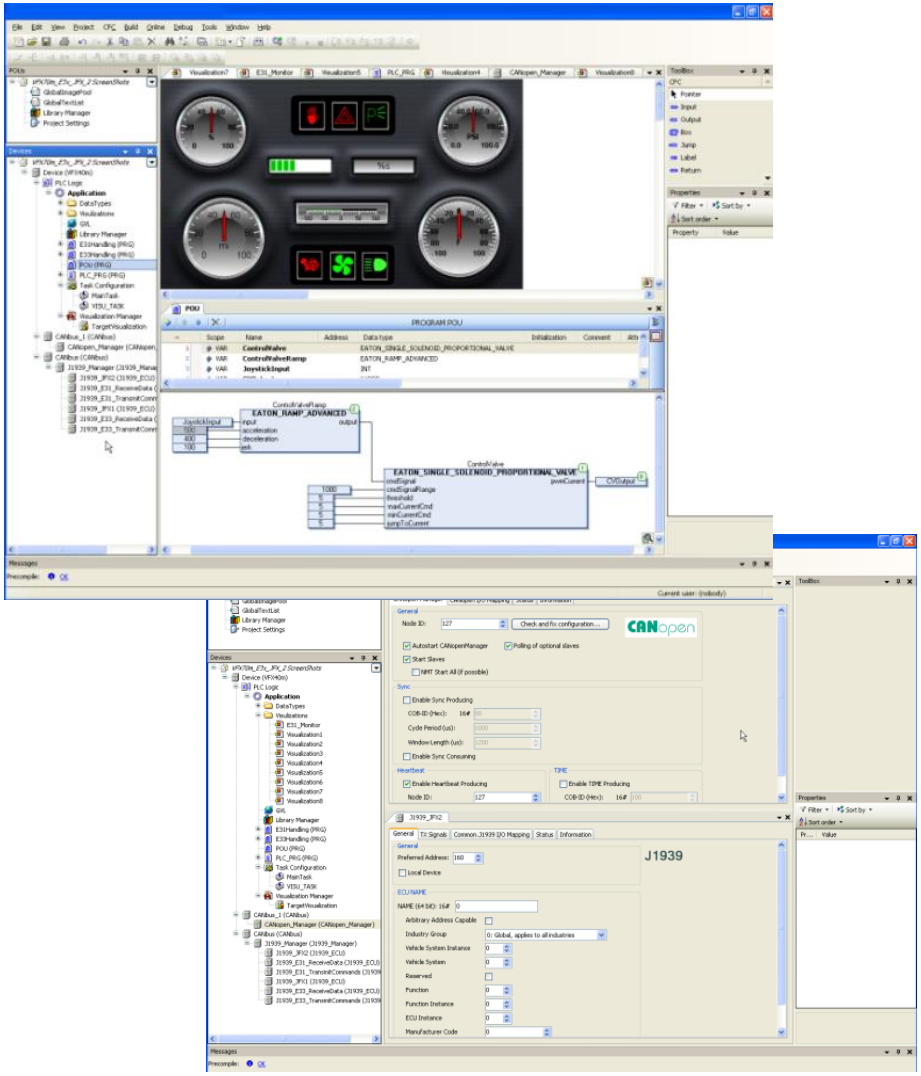
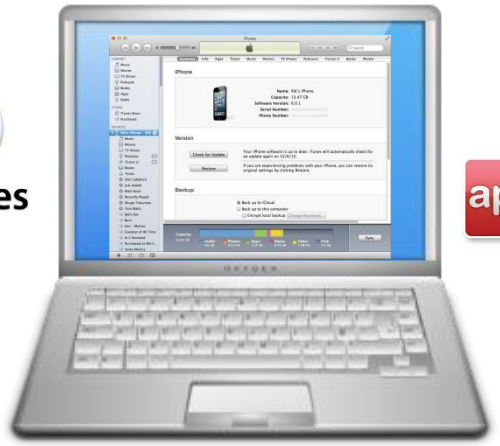
Pro-FX™ Control

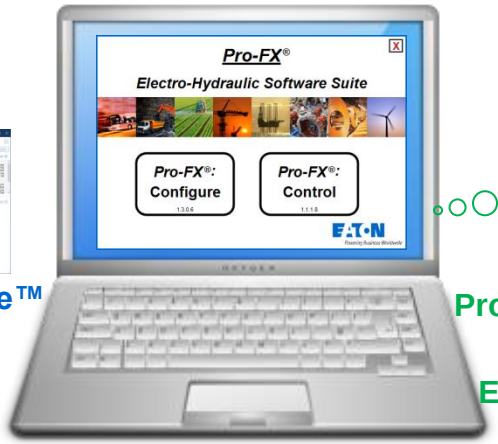


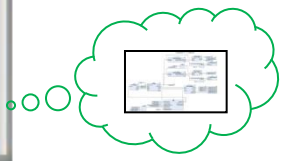
- Based on CODESYS V3.5
  - IEC 61131-3 compliant
- Six programming languages
  - Graphical
  - Textual
- Common programming tool
  - Controller, display
- Function block libraries
- Simulation/debug capabilities
- Fully integrated CANOpen & J1939 CAN Stacks
- Advanced Graphics Capabilities

iPhone vs. Pro-FX®



Pro-FX Configure™





Pro-FX Control™
&
Expert System

Pro-FX Configure™

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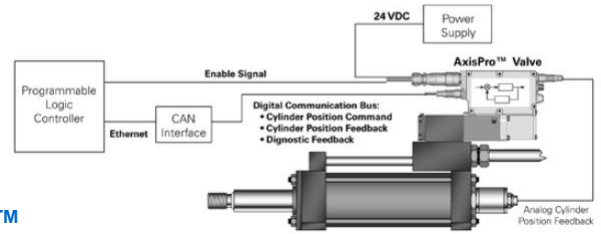

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